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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,294	10/26/2001	Lawrence J. Karr	50037.65USU1/177809.2	7483
27488	7590	02/21/2006	EXAMINER	
MERCHANT & GOULD (MICROSOFT)			NGUYEN, DUC M	
P.O. BOX 2903			ART UNIT	
MINNEAPOLIS, MN 55402-0903			PAPER NUMBER	
			2685	

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/044,294	Applicant(s) KARR ET AL.	
	Examiner Duc M. Nguyen	Art Unit 2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 40-42 and 44-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 40-42, 44-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to applicant's response filed on 12/12/05. Claims 1, 40-42, 44-61 are now pending in the present application. **This action is made final.**

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1, 40-42, 44-61 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As to claims 1, 40-42, 61, the claims recite the limitation of "conveying information (broadcast, localcast or peer information) to a user interface of the mobile device" in the claims, this limitation is **never** described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In the below rejection, the limitation of "conveying information to a user interface of the mobile device" would be interpreted as an "inherent" feature based on the fact that every mobile device would inherently comprise a user interface in order to encode and transmit an information signal, or in order to receive (convey) and decode an information signal. In addition, it is not clear what subject matter is claimed in the above limitation because there are several interfaces

in a mobile device. For instance, interface for transmit/receive a message, interface for presenting data to a user (i.e, a display, a speaker), interface for input/output operations such as keypad, menu display, etc.

Claim Rejections - 35 USC 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1, 40-42** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lorang et al** (US Pat No. **5,548,814**) in view of **Miyaki et al** (US Pat No. **5,903,618**).

Regarding claims **1, 40-42**, **Lorang** discloses a wireless communication (paging) system having local and wide-area reception modes, comprising :

- a broadcast transmitter (20) configured to transmit to a device (12) over a FM subcarrier channel to a wide area (see Figs. 1, 5-6, col. 5, lines 18-22, col. 8, lines 21-28 regarding wide area, col. 10, lines 63-64 regarding standard paging FM architecture); and

- a localcast transmitter (42, 96, 112) coupled to a data source and configured to transmit over a local area and in a locally-unused FM frequency (see Figs. 1, 4, 6 and col. 8, lines 21-28 regarding local area, col. 10, lines 62-63 regarding standard FM architecture as a candidate for the lower power two-way link);

- a mobile device (PDU 10) including a receiver and a transmitter and is configured to receive and transmit data from/to the localcast transmitter, and further configured to receive

transmitted data from a wide-area broadcast transmitter (see col. 12, lines 44-45) and from another mobile device (see col. 7, lines 15-16);

- different information for local information (data transfer information) and broadcast (Request for location message) information (see col. 7, lines 49-67);

- different transmission format for local mode and broadcast mode (see col. 9, lines 40-44, col. 11, lines 29-31 and col. 12, lines 34-41). Also note that different data rates would obviously comprise different modulation schemes.

Therefore, it is clear that **Lorang** would disclose all the claimed limitations except for a peer-to-peer mode. However, it is noted such a peer-to-peer mode is known in the art as disclosed by **Miyake** (see Fig. 1 and col. 4, lines 25-30). Since **Larang** and **Miyake** are analogous arts, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the above teaching of **Miyaki** to **Larang** for further providing a peer-to-peer mode to PDUs in **Larang** as well, thereby providing a mobile device with a peer-to-peer mode as claimed, so that a groups of pagers which are close to each other can communicate to each other without the need for a signal has to be transmitted via a base station or a service center, thereby the time for communication between the two terminals can be shortened (see **Miyaki**, col. 1, line 64 – col. 2, line 2). Note that the peer-to-peer mode and the localcast mode would obviously use the same transmission bandwidth of a bi-directional (or two-way) communication link.

As to the newly added limitation of “conveying information to a user interface of the mobile device”, it is noted that a mobile device would inherently comprise a user interface in

order to encode and transmit an information signal, or in order to receive (or convey) and decode an information signal. Therefore, the claimed limitations are still made obvious by **Larang and Miyaki**.

3. Claims **44-61** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Larang** in view of **Miyaki** and further in view of **Chadwick et al** (US 5,442,646).

Regarding claim **44**, the claim is rejected for the same reason as set forth in claim 1 above. In addition, although **Larang** is silent on components of a broadcast transmitter (see Fig. 3), it is noted that components such as I/O controller, interfaces, encoder, frequency control processor, data packets, subframes and frames at a subcarrier and subcarrier signal generator as described in **Chadwick** (see Fig. 2, col. 4, line 36 – col. 34) for encoding and transmitting digital data into control packets are components obviously required for either the localcast transmitter or the broadcast transmitter, in order to encode and transmit digital data into control and data packets in subframes or frames. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine and modify the above teachings of **Chadwick, Larang and Miyaki** for provide components as claimed, in order for a transceiver being able to reassemble input data into packets for re-transmission.

Regarding claims **45-49**, they are rejected for the same reason as set forth in claim 1 above. In addition, since such components (data and uplink signaling information) as recited in the claims are known in the art (Official Notice), in order for a transceiver to receive input data, reassemble data into packets for transmission, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above teachings of **Chadwick**,

Larang and **Miyaki** for provide components as claimed, in order for a transceiver being able to reassemble input data into packets for re-transmission.

Regarding claim **50**, the claim is rejected for the same reason as set forth in claim 42 above. In addition, although **Larang** is silent on components of a localcast transmitter (see Fig. 3), it is noted that components such as I/O controller, interfaces, encoder, frequency control processor, data packets, subframes and frames at a subcarrier and subcarrier signal generator as described in **Chadwick** (see Fig. 2, col. 4, line 36 – col. 34) for encoding and transmitting digital data into control packets are components obviously required for either the localcast transmitter or the broadcast transmitter, in order to encode and transmit digital data into control and data packets in subframes or frames. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above teachings of **Chadwick**, **Larang** and **Miyaki** for provide components as claimed, in order for a transceiver being able to reassemble input data into packets for re-transmission.

Regarding claims **51-55**, they are rejected for the same reason as set forth in claim 1 above. In addition, since such components (data and uplink signaling information) as recited in the claims are known in the art (Official Notice), in order for a transceiver to receive input data, reassemble data into packets for transmission, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above teachings of **Chadwick**, **Miyaki** and **Larang** for provide components as claimed, in order for a transceiver being able to reassemble input data into packets for re-transmission.

Regarding claim **56**, it is rejected for the same reason as set forth in claim 42 above. In addition, **Larang** discloses microprocessors, interfaces, antenna, RAM and EEPROM memory

for the pager (see Fig. 10 and col. 11, line 25 – col. 12, line 41). Further, although **Larang** fails to disclose a realtime component, it is noted that such realtime component is known in the art (Official Notice), in order for a transceiver to synchronize for receiving and transmitting data packets in certain timeslots. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above teachings of **Chadwick, Miyaki** and **Larang** to provide a realtime components as claimed, in order to receive and transmit data packets synchronously.

Regarding claims **57-58**, they are rejected for the same reason as set forth in claim 42 above. In addition, **Larang** discloses a two-way PDU being able to receive or transmit a signal to another device (see col. 7, lines 15-16).

Regarding claim **59**, it is rejected for the same reason as set forth in claim 42 above. In addition, it is clear that when receiving a signal from another device, such signal is transmitted/received in a localcast mode from PDUs.

Regarding claim **60**, it is rejected for the same reason as set forth in claim 42 above. In addition, **Larang** discloses the device receive both transmission modes using substantially the same circuitry (see Fig. 10).

Regarding claim **61**, the claim is rejected for the same reason as set forth in claim 56 above.

Response to Arguments

4. Applicant's arguments with respect to claims 1, 40-42, 44-61 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

6. **Any response to this final action should be mailed to:**

Box A.F.

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300 (for formal communications intended for entry)

(571)-273-7893 (for informal or draft communications).

Hand-delivered responses should be brought to Customer Service Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Application/Control Number: 10/044,294
Art Unit: 2685

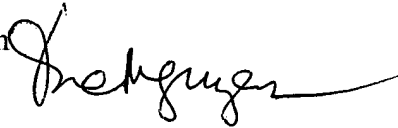
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Any inquiry concerning this communication or communications from the examiner should be directed to Duc M. Nguyen whose telephone number is (571) 272-7893, Monday-Thursday (9:00 AM - 5:00 PM).

Or to Doris To (Supervisor) whose telephone number is (571) 272-7629.

Duc M. Nguyen

Feb 13, 2006

A handwritten signature in black ink, appearing to read 'Duc M. Nguyen', written over the printed name and date.